

On page 6, line 24, before "cubic", insert --nearly--.

On page 7, line 3, delete "evaporation" and substitute therefor

--deposition--.

On page 7, line 13, delete "heat" and substitute therefor --thermal--.

On page 7, line 17, delete "metal" and substitute therefor --an insulator--.

On page 7, line 18, delete "an insulator" and substitute therefor --metal--.

On page 8, line 2, before "to", delete " $\mu\text{m}$ " and substitute therefor --micro meter--.

On page 8, line 2, after "to 2.5", delete " $\mu\text{m}$ " and substitute therefor

--micro meter--.

On page 8, line 2, delete "absorbance" and substitute therefor

--absorptivity--.

On page 8, line 4, delete "absorbance is increased to" and substitute therefor --high absorptivity decreases net heat rejection capability--.

On page 8, line 5, delete "obstruct heat radiation".

On page 8, line 14, delete "heat" and substitute therefor --thermal--.

#### In the claims:

Please amend the claims as originally filed as follows:

1 Claim 1 (Amended). In a thermal [heat] control device, a variable-phase  
2 substance exhibiting a property of an insulator [or a property of metal] in a  
3 high temperature phase and a property of metal in [or] a low temperature  
4 phase, [respectively,] and radiating a great amount of heat in a high  
5 temperature phase and [or] a small amount of heat in the low temperature  
6 phase [or the high temperature phase, respectively,] controls a temperature  
7 of an object.

1 Claim 2 (Amended). A thermal [heat] control device as claimed in claim 1,  
2 wherein said variable-phase substance comprises a [an oxide of] perovskite  
3 Mn oxide.

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sub-a4)

1 Claim 3 (Amended). A thermal [heat] control device as claimed in claim 2,  
2 wherein the [oxide of] perovskite Mn oxide comprises an oxide of Mn-  
3 containing perovskite represented by  $A_{1-x}B_xMnO_3$  where A is at least one  
4 of La, Pr, Nd and Sm rare earth ions, and B is at least one of Ca, Sr and Ba  
5 alkaline rare earth ions.

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1 Claim 4 (Amended). A thermal [heat] control device as claimed in claim 3,  
2 wherein said variable-phase substance is affixed to the object by powder  
3 coating, deposition [evaporation], crystalline adhesion or adhesion of a  
4 film formed of a variable-phase substance containing a binder.

1 Claim 5 (Amended). A thermal [heat] control device as claimed in claim 4,  
2 further comprising either one of a plate and a film mounted on said phase-  
3 variable substance for transmitting infrared rays and reflecting visible rays.

1 Claim 6 (Amended). A thermal [heat] control device as claimed in claim 5,  
2 wherein the object comprises either one of an artificial satellite and [a]  
3 spacecraft.

1 Claim 7 (Amended). A thermal [heat] control device as claimed in claim 1,  
2 wherein the [oxide of] perovskite Mn oxide comprises an oxide of Mn-  
3 containing perovskite represented by  $A_{1-x}B_xMnO_3$  where A is at least of  
4 La, Pr, Nd and Sm rare earth ions, and B is at least one of Ca, Sr, and Ba  
5 alkaline rare earth ions.

1 Claim 8 (Amended). A thermal [heat] control device as claimed in claim 7,  
2 wherein said variable-phase substance is affixed to the object by powder  
3 coating, deposition [evaporation], crystalline adhesion or adhesion of a  
4 film formed of a variable-phase substance containing a binder.

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1 Claim 9 (Amended). A thermal [heat] control device as claimed in claim 8,  
2 further comprising either one of a plate and a film mounted on said phase-  
3 variable substance for transmitting infrared rays and reflecting visible rays.

1 Claim 10 (Amended). A thermal [heat] control device as claimed in claim  
2 9, wherein the object comprises either one of an artificial satellite and [a]  
3 spacecraft.

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1 Claim 11 (Amended). A thermal [heat] control device as claimed in claim  
2 1, wherein said variable-phase substance comprises an oxide of Cr-  
3 containing corundum vanadium.

1 Claim 12 (Amended). A thermal [heat] control device as claimed in claim  
2 11, wherein said variable-phase substance comprises  $(V_{1-x}Cr_x)_2O_3$ .

1 Claim 13 (Amended). A thermal [heat] control device as claimed in claim  
2 12, wherein said variable-phase substance is affixed to the object by  
3 powder coating, deposition [evaporation], crystalline adhesion or adhesion  
4 of a film formed of a variable-phase substance containing a binder.

1 Claim 14 (Amended). A thermal [heat] control device as claimed in claim  
2 13, further comprising either one of a plate and a film mounted on said  
3 phase-variable substance for transmitting infrared rays and reflecting  
4 visible rays.

1 Claim 15 (Amended). A thermal [heat] control device as claimed in claim  
2 14, wherein the object comprises either one of an artificial satellite and [a]  
3 spacecraft.

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1 Claim 16 (Amended). A thermal [heat] control device as claimed in claim  
2 1, wherein said variable-phase substance comprises  $(V_{1-x}Cr_x)_2O_3$ .

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1 Claim 17 (Amended). A thermal [heat] control device as claimed in claim  
2 16, wherein said variable-phase substance is affixed to the object by  
3 powder coating, deposition [evaporation], crystalline adhesion or adhesion  
4 of a film formed of a variable-phase substance containing a binder.

1 Claim 18 (Amended). A thermal [heat] control device as claimed in claim  
2 17, further comprising either one of a plate and a film mounted on said  
3 phase-variable substance for transmitting infrared rays and reflecting  
4 visible rays.

1 Claim 19 (Amended). A thermal [heat] control device as claimed in claim  
2 18, wherein the object comprises either one of an artificial satellite and [a]  
3 spacecraft.

1 Claim 20 (Amended). A thermal [heat] control device as claimed in claim  
2 1, wherein said variable-phase substance is affixed to the object by powder  
3 coating, deposition [evaporation], crystalline adhesion or adhesion of a  
4 film formed of a variable-phase substance containing a binder.

1 Claim 21 (Amended). A thermal [heat] control device as claimed in claim  
2 20, further comprising either one of a plate and a film mounted on said  
3 phase-variable substance for transmitting infrared rays and reflecting  
4 visible rays.

1 Claim 22 (Amended). A thermal [heat] control device as claimed in claim  
2 21, wherein the object comprises either one of an artificial satellite and [a]  
3 spacecraft.

1 Claim 23 (Amended). A thermal [heat] control device as claimed in claim  
2 1, further comprising either one of a plate and a film mounted on said  
3 phase-variable substance for transmitting infrared rays and reflecting

Sub 24

4 visible rays.

1 Claim 24 (Amended). A thermal [heat] control device as claimed in claim  
2 23, wherein the object comprises either one of an artificial satellite and [a]  
3 spacecraft.

1 Claim 25 (Amended). A thermal [heat] control device as claimed in claim  
2 1 [23], wherein the object comprises either one of an artificial satellite and  
3 [a] spacecraft.

1 Claim 26 (Amended). In a method of controlling a temperature of an  
2 object, a variable-phase substance exhibiting a property of an insulator [or  
3 a property of metal] in a high temperature phase and a property of metal in  
4 [or] a low temperature phase, [respectively,] and radiating a great amount  
5 of heat in the high temperature phase and [or] a small amount of heat in the  
6 low temperature phase [or the high temperature phase, respectively], is  
7 affixed to said object.

1 Claim 27 (Amended). A method as claimed in claim 26, wherein the object  
2 comprises either one of an artificial satellite and [a] spacecraft.

1 Claim 28 (Amended). A method as claimed in claim 26, wherein said  
2 variable-phase substance comprises either one of a [an oxide of] perovskite  
3 Mn oxide and an oxide of Cr-containing corundum vanadium.

1 ~~Claim 29 (Amended). A method as claimed in claim 28, wherein the object~~  
2 ~~comprises either one of an artificial satellite and [a] spacecraft.~~

In the Abstract: